

**AMENDMENT TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application. The following listing provides the amended claims with deleted material crossed out and added material underlined to show the changes made.

1. (Withdrawn) A method of encoding a block of data having  $n$  dimensions, wherein the block contains a plurality of systematic block code codewords, the method comprising the steps of:
  - a. performing a parity calculation along a hyper diagonal in the block, wherein a parity result for the parity calculation is generated; and
  - b. adding the parity result to the block of data.
2. (Withdrawn) The method according to claim 1 further comprising the step of storing the parity result in a parity array, wherein the parity array is added to the block of data as a separate array.
3. (Withdrawn) The method according to claim 2 further comprising the step of rotating the parity array such that the parity result stored in the parity array is substantially aligned with the hyper diagonal along which the parity result was calculated.
4. (Withdrawn) The method according to claim 2 further comprising the step of initializing the parity array such that the parity bits are set to zero.
5. (Withdrawn) The method according to claim 1 further comprising the step of outputting the block of data when the parity result is aligned substantially with the hyper diagonal.
6. (Withdrawn) The method according to claim 1 wherein the block of data is three dimensional.

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